

National Air Quality and Emissions Trends Report

2003 SPECIAL STUDIES EDITION

U.S. Environmental Protection Agency

Office of Air Quality Planning and Standards

Emissions Monitoring and Analysis Division

Air Quality Trends Analysis Group

Research Triangle Park, North Carolina 27711

September 2003

 Printed on recycled paper.

About the Cover

Cover graphics reflect the range of topics addressed in the series of exploratory analyses studies included in this 2003 Special Studies Edition of the National Air Quality and Emissions Trends Report. Subjects addressed in these studies include new air quality reporting techniques, chemical speciation of PM_{2.5}, national spatial variation, ozone exceedances, trends in CO concentrations, and transport of Asian dust.

Disclaimer

This report has been reviewed and approved for publication by the U.S. Environmental Protection Agency's Office of Air Quality Planning and Standards. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use.

Acknowledgments

The Trends Team would like to acknowledge the members of EPA's Office of Research and Development, Office of Atmospheric Programs, Office of Radiation and Indoor Air, and Office of Transportation and Air Quality for their input for this report; Colorado State University for providing summary data from the IMPROVE monitoring network; support for desktop publishing and Web site development provided under EPA contract 68-D-02-065; and the Trends Workgroup in EPA's Office of Air Quality Planning and Standards for providing comments throughout report development.

Preface

This is the 28th report on air pollution trends in the United States issued by the U.S. Environmental Protection Agency. The report is prepared by the Air Quality Trends Analysis Group (AQTAG) in Research Triangle Park, North Carolina and is directed toward both the technical air pollution audience and other interested parties and individuals.

The report can be accessed via the Internet at **<http://www.epa.gov/airtrends/>**. AQTAG solicits comments on this report and welcomes suggestions regarding techniques, interpretations, conclusions, or methods of presentation. Comments can be submitted via the website or mailed to:

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Readers can access data from the Aerometric Information Retrieval System (AIRS) at **<http://www.epa.gov/air/data/index/html>** and real time air pollution data at **<http://www.epa.gov/airnow/>**.

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Acronyms

AIRS	Aerometric Information Retrieval System	NO ₂	nitrogen dioxide
AQI	Air Quality Index	NO _x	nitrogen oxides
AQS	Air Quality System	NPS	National Park Service
AQTAG	Air Quality Trends Analysis Group	NTI	National Toxics Inventory
CAA	Clean Air Act	O ₂	oxygen
CAAA	Clean Air Act Amendments	O ₃	ozone
CASTNet	Clean Air Status and Trends Network	PAMS	Photochemical Assessment Monitoring Stations
CEMs	continuous emissions monitors	PAN	peroxyacetyl nitrate
CFC	chlorofluorocarbons	Pb	lead
CFR	Code of Federal Regulations	PM	particulate matter
CMSA	consolidated metropolitan statistical area	PM ₁₀	particulate matter of 10 micrometers in diameter or less
CO	carbon monoxide	PM _{2.5}	particulate matter of 2.5 micrometers in diameter or less
CPA	coefficient of perfect agreement	PMSA	primary metropolitan statistical area
EGR	emission gas recycle	POC	pollutant occurrence code
EPA	Environmental Protection Agency	ppm	parts per million
GLM	General Linear Model	PSI	Pollutant Standards Index
HAPs	hazardous air pollutants	RVP	Reid Vapor Pressure
I/M	inspection and maintenance	SLAMS	State and Local Air Monitoring Stations
IMPROVE	Interagency Monitoring of Protected Environments	SO ₂	sulfur dioxide
MACT	maximum achievable control technology	SO _x	sulfur oxides
MSA	metropolitan statistical area	STN	Speciation Trends Network
MDL	minimum detectable level	TNMOC	total non-methane organic compound
NAAQS	National Ambient Air Quality Standards	TSP	total suspended particulate
NADP/NTN	National Atmospheric Deposition Program/National Trends Network	VMT	vehicle miles traveled
NAMS	National Air Monitoring Stations	VOCs	volatile organic compounds
NEI	National Emissions Inventory	µg/m ³	micrograms per cubic meter